

REMARKS

Claims 1-8 are currently pending in this application. Claims 9 and 10 are added by this amendment. Accordingly, Claims 1-10 are pending after the entry of this amendment.

Support for Claims 9 and 10 is found throughout the specification as originally filed, including, for example, paragraphs [0099] and [0105]. No new matter is added.

The claimed inventions are directed to methods for loading a plurality of liquid samples from microtiter plate into a through-hole array. The microtiter plate is characterized by well-to-well spacing that is of a different dimension than the through-hole spacing of the through-hole array.

The Office Action rejects Claims 1-8 under 35 U.S.C. § 103(a) over U.S. Patent No. 6,027,873 to Schellenberger (hereinafter "Schellenberger"), U.S. Patent No. 5,770,860 to Franzen (hereinafter "Franzen"), and U.S. Patent No. 4,682,890 to de Marcario (hereinafter "de Marcario"). Applicants respectfully disagree with this rejection.

Schellenberger is directed, in part, to a testing apparatus including a testing plate with a pair of opposing surfaces and a plurality of through holes. The through holes are arranged in groups of at least two columns and two rows of holes and in sets of two or more groups of holes.

Franzen is directed to a systems and methods of adapting a "sample support in its size and shape to microtiter plates." Franzen, col. 2, lines 58-60. Franzen uses an array of micropipettes with the same spot spacing as the reaction wells of a microtiter plate. Id., col. 2, lines 66-67. The spot spacing of the micropipettes remains the same and instead relies on interlacing to populate the sample support. Id., col. 3, lines 9-18.

de Macario is directed to a "microsample holder" for vertical beam spectrophotometers having a circular holes "on the order of about 3 mm in diameter" for retaining a liquid sample. de Macario, col. 2, lines 60-65.

The cited reference, alone or in combination, fail to teach or suggest a method of loading a plurality of liquid samples into a through-hole array from a microtiter plate,

wherein the through-hole array is characterized by a hole spacing that is an integral fraction of the well-to-well spacing.

Each of the references cited are directed to problems that are distinct from those addressed by Applicants. Schellenberger is directed to through-hole arrays loaded by immersing the platen in a solution. Schellenberger, col. 6, lines 10-30. de Macario merely shows liquid samples applied to circular retaining elements. See, e.g., de Macario, col. 10, lines 55-69. de Macario's silence on methods of filling the retaining elements, in combination with the size of the retaining elements (approximately 3 mm diameter) and the small number of retaining elements in the holder suggests that the retaining elements were filled by known methods such as immersing the holder in a liquid or using a single pipette.

Franzen is addressed to a completely different problem than either Schellenberger, de Macario, or Applicants' invention. Franzen shows a method of using a multipipette array to transfer samples from a microtiter plate to a sample support support. See, e.g., Franzen, col. 2, lines 58-67. Rather than placing samples in through-holes, as in Applicants' claimed invention, Franzen's method places the samples on a support such as a support containing a lacquer layer of nitrocellulose for MALDI process. Id., col. 3, lines 30-34. Indeed, the variance of spot location in Figure 2 of Franzen shows that Franzen's methods are not applicable to through-hole plates. The use of such a method in combination with a through-hole array could result in misloading of samples, if not damage to either the micropipette array or the through-hole array.

Thus, none of Schellenberger, Franzen, or de Macario, either alone or in combination teach or suggest the claimed inventions. Accordingly, Applicants request the allowance of Claims 1-10.

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In view of the foregoing, Applicants request reconsideration of all the rejections and allowance of the application with claims 1-10 presented herein. If a telephone conversation with Applicants' representatives would be helpful to expedite prosecution of the application, Applicants urge the Examiner to telephone the undersigned at the number indicated below.

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Respectfully submitted,

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